Learning from Escaped Prescribed Fire Reviews

A Joint Fire Science Program Project
(JFSP # 10-1-05-1)

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NWCG Fire Use Subcommittee Meeting
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Today's Objective

Brief team on project: methods, participants, results, interpretation, discussion.

AGENDA

➢Project overview

➢Participants

➢Data resulting in recommendations

➢Results – focusing on Rx Implementation

      - illustrate key themes

➢Concepts to help interpret and use results

? BREAK?

➢Discussion

Project Objectives

❖ Investigate existing learning

❖ Identify ways to improve organizational learning

Project Methods

Inter Agency Workshops

organized around concept of Dialogue

Held 5:
- Portland – January
- Denver, Salt Lake City - March
- Tucson - April
- Florida – July

2 day workshops
- < 25 people
- Range of responsibilities (ground – WO)
- Range of agencies

Anticipated Products

❑ Recommendations – based on understanding of strengths, weaknesses, gaps, opportunities when/where/how learning currently occurs

❑ Podcasts – based on tips and techniques identified

❑ Peer review articles

Workshop Structure

Learning: our sandbox

	Event	Review Process	Review Product	Transfer Activities
Individual				
Burn Team				
Review Team				
Peers/Units				
Organization				

INSIGHT – 'aha'

ACTION – new behavior

Workshop Flow

- Day 1 – Drilling down into learning
    - ✓ Personal stories of insight and action

- Day 2 -- Barriers/facilitators to learning
    - ✓ Processes, Products, Transfer methods

Types of conversation

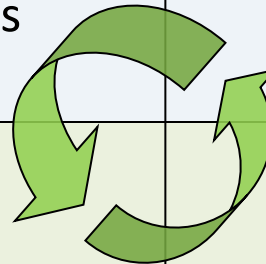|	Focus on group	Focus on individuals
Dialogue	**Generative learning** Goal: Developing emerging possibilities Tone: Present to self, other, deep connections	**Mutual Learning** Goal: Understanding Tone: Speaking to be understood Listening to understand
Monologue	**Serial monologue** Goal: Info exchange Tone: Talking nice	**Dueling monologues** Goal: Persuasion Tone: Speaking to persuade Listening to defend

Focus on group   Focus on individuals
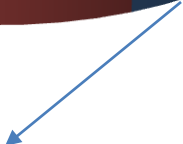
Sources: ActionDesign, Dialogos, Scharmer

Participants

Organizational Level

9%

18%

45%

28%
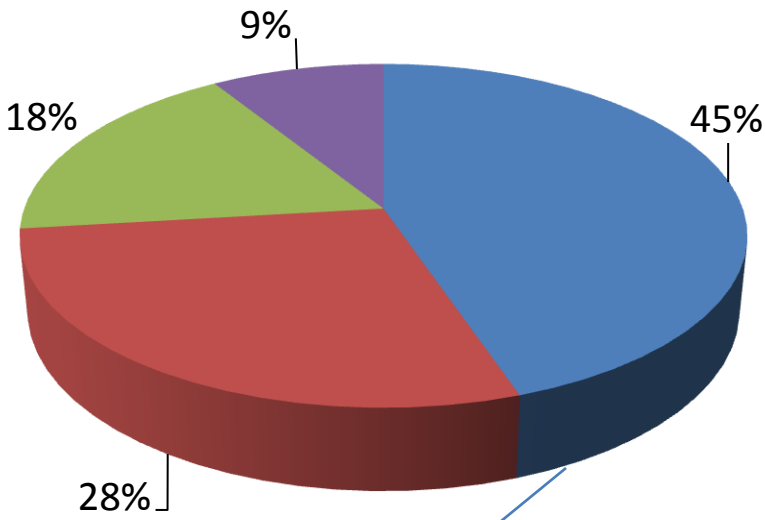
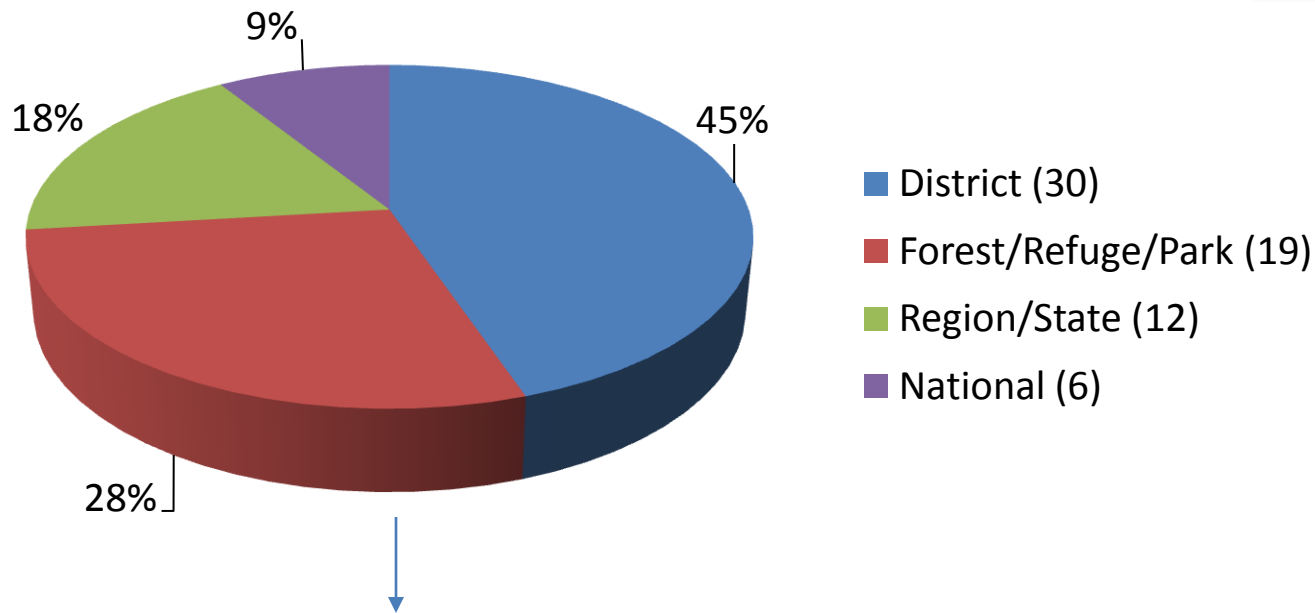- District (30)
- Forest/Refuge/Park (19)
- Region/State (12)
- National (6)

67 Total

DISTRICT

NFS	22
NPS	5
FWS	1
BLM	1
BIA/Tribe	0
AD	1

District/Zone AFMO (5)
District/Zone FMO (8)
District Fuels Specialist (4)
Zone Fuels specialist (2)
Zone Fire Staff Officer (1)
Engine Captain (2)
Seasonal (1)
Smokejumper (1)
WF Module (2)
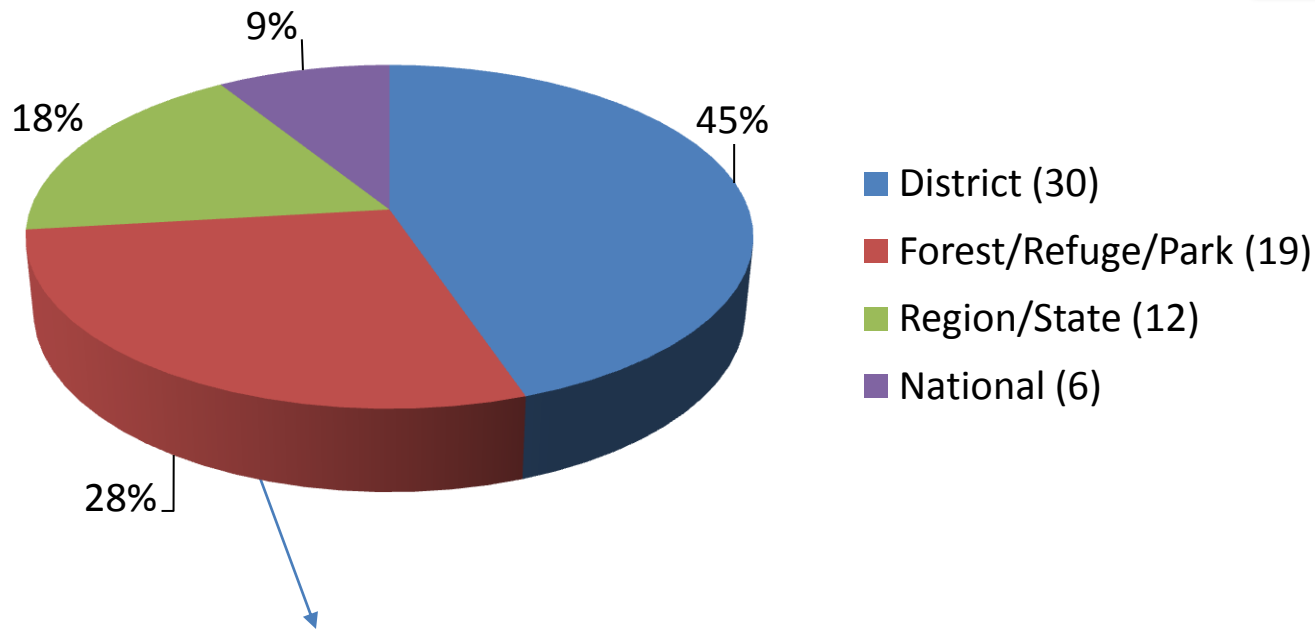Hotshot , Asst Sup (1)
AD (1)
District Ranger (2)

Pie chart:
- 45% — District (30)
- 28% — Forest/Refuge/Park (19)
- 18% — Region/State (12)
- 9% — National (6)

REGION/STATE

NFS	5
NPS	1
FWS	4
BLM	1
BIA/Tribe	1
Other	0

Regional/Deputy Regional FMO (3)
State/Regional Fuels (6)
Regional Fire Ecologist (1)
Regional Safety (1)
Regional Asst Dir F&AM (1)

Organizational Level
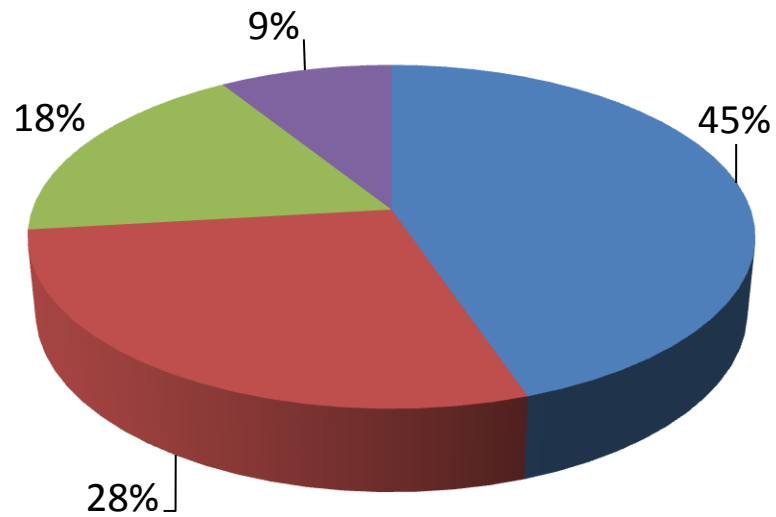
Legend:
- District (30)
- Forest/Refuge/Park (19)
- Region/State (12)
- National (6)

National

BLM	2
TNC	1
FUTA	1
PFTC	1
LLC	1

Agency

- NFS (40)
- NPS (6)
- FWS (9)
- BLM (4)
- BIA/Tribe (2)
- Other (6)
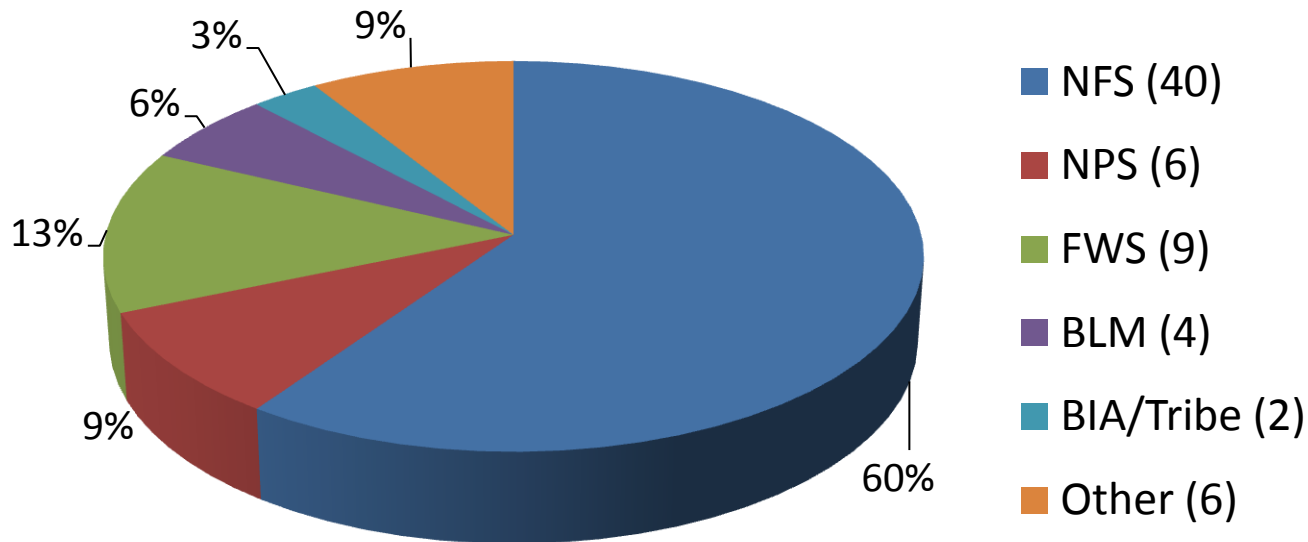
Experience - Have you ever been:

- the subject of an escaped Rx review?
- a member of a review team?
- the line officer accountable for a review?
- both subject and team member?
- No experience

0%   50%   100%
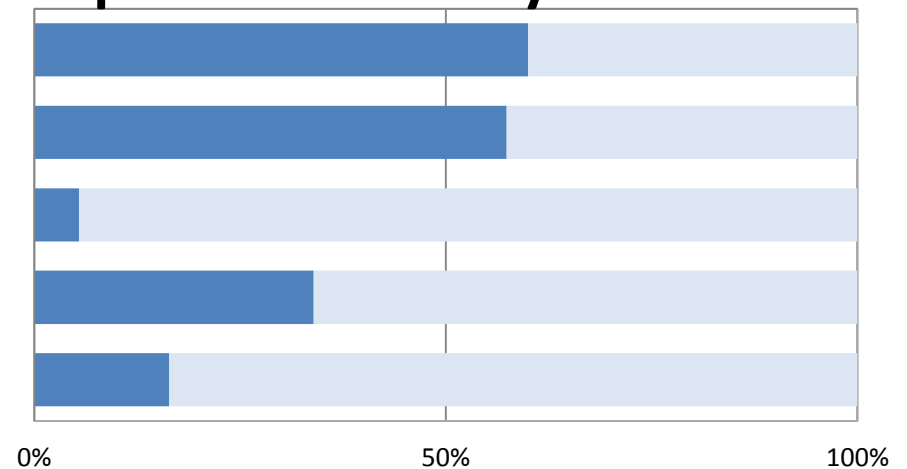
Data and Analysis Methods

DATA	ANALYSIS	PRODUCT

Workshop notes

Flip-chart summaries

Compiled →

Workshop summary

Flip chart summary

Audio recordings

↓

Transcribed   QA/QC   NVIVO

a) Application Oriented
  - syntheses
        GTR & chapters
        ?
  - tips and techniques
        Pod-casts
        ?
- recommendations

b) Theory Oriented
- peer-review papers

<u>Analysis</u>

Instrumental: (What) –

       * Synthesize and describe major types of learning

          - when/how/who/why

          - facilitators/barriers

          - recommendations

Systems: (How /Why) –

       * Use theory as lens

          - rhetoric and communications, dialogue and mental models

          -high performance, resiliency, and learning

Results

Major themes relate to:

➢Policy and Guidance

➢Conducting a Review

➢Transferring/Institutionalizing Lessons

drawn from points consistently made:

- across workshops

- across levels of the hierarchy

- across agencies

Illustrative Narrative

" I get a little confused, because we keep talking about learning. … And I'd ask, who's supposed to be learning what? Because there's all these different levels.

> There's the Burn Boss.
> There's the Holding Boss.
> There's a guy on the nozzle that could very well be learning something from it, and how they're going to learn it is going to depend a lot on where it's presented, how it's presented.
> Agency Administrators want to learn something else.
> Policymakers might want to learn something else.

So it's kind of like we take this thing, we make a document out of it and put it on the website, and all of a sudden, presto, it's going to meet all of these different learning needs? It doesn't seem like that's possible. It seems like it's missing all of the boats by trying to get all of them at once."

(FWS, Regional AFMO)

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Illustrative Narrative: Who desires what?

Corrective (policy) Action: "What we're looking for at our level is findings, recommendations that need to be addressed by policy change or something like that. "(**National** *Fire Ops, BLM)*

Improve :"I was pretty disappointed with the [] report. I guess I had higher expectations than I should have, but … I was looking at the review team as kind of the experts, the guys who knew how to be a Duty Officer, to come in and tell me, well, these are the tricks of the trade or whatever, …seemed to me that the [] report was written to teach other people what happened on the [unit]. It wasn't written to teach the [unit] how to be better, {ah, hmm}. . . I didn't get one thing out of how to do my job better."
*(NFS, **District** Fuels Specialist)*

Info to train/coach: "I'm looking for something concise and something that I can maybe turn into a sand table exercise. …Concise lessons learned from the actual players … some kind of a bullet list that you can go through and sort of latch onto it." *(NPS, Fuels Management Specialist)*

Illustrative Narrative: Who desires what?

Due Diligence: "Number one through seven in the policy guide, {laughter} seriously. That's what I need when I'm on the receiving end of one of those until such time as that policy changes at the minimum. And once again, that's not necessarily consistent with the approach to let's get the learning out of it as much as it is let's get the widgets checked off here." (*NFS **Regional** F&AM*)

Trends: "Are there themes coming out that make our program very vulnerable in future planning and implementation and application?"
(NFS, Regional Fuels)

"the story is in the experience as well as all the decision-making leading up to lighting the match and following through with it. Those are the stories, as a member of a prescribed burn team, those are the stories I want to hear. I could give a rip about the investigation. I want to hear the stories. "
(Tribal FMO)

Illustrative Narrative: Who's learning from reviews?

I think the people who are learning the most from the reviews are the review teams. (*Asst Regional Dir F&AM , NFS*)

Illustrative Narrative: How to build learning?

Current: "We do escaped prescribed fire reviews with the intent of identifying deficiencies so we can modify the planning process. That's basically what it says. **There's nothing about the learning** piece. There's nothing about it." (*BLM, National Fire Operations)*

The question on the table: "Do we have the objective of reviewing policy and checking the seven steps **or** do we have an objective to facilitate a learning culture within our organizations?" *(NFS, AFMO)*

Conundrum: So we really do have kind of **a Catch-22** right now that both me sitting in the Regional Office being told by National Office you didn't meet the policy, so how to address this thing. Me then being in the Regional Office telling the Forest that. In the meantime, we had probably the most useful piece of information we could have in this FLA in terms of people on the ground really learned some stuff about a new fuel type on their forest and how they were going to approach that in the future and some really cool stuff. What we didn't have were all those metrics to necessarily be able to say how this one may relate to one in your region or your park or your refuge. *(Asst Regional Dir F&AM , NFS)*

Illustrative Narrative: Seven Elements and Learning

Not compatible: "I think that's where we were really looking **at two different things,** an educational product and a report product. …, I see a lot of value in that that's actually going to help people do a better job, but that's not answering the seven questions. It's really two different animals, and from a learning standpoint, I don't know that we're set up very well at all to do the learning part of it, because we're guided by this seven-step process. " (*FWS, Regional AFMO*)

Expectations: "It seems like a lot of it depends on what you expect to get out of the report. For a different audience, I mean, some people only want to know **are we still in policy**? Do we have to change policy? Does it affirm policy? Did they have a plan? Did they follow it? Was it a good plan? Okay, we're good, end of story. Whereas other people really want to know what really happened. How can I prevent this from happening again? …. And it seems like the ground level wants the most out of it, and then as you move higher, it's making sure you're within policy or within guidelines or you haven't upset too many partners or politicians. You've met all those levels of expectations. So those reports might satisfy that. I don't know, but they don't satisfy the ground person who wants to know **what can I do differently to prevent this?** "
(*NPS, Fire Ecologist*)

Direction

Clear: "A clear Delegation [a clear document that states what the intent of the review **is without a predisposed solution**] and **everybody understands** what that Delegation is."
(NFS, Forest Safety Officer)

Comprehensive and Transparent: "Clarify the Delegation of Authority – ensure it covers who the audience is, what the purpose is, how it is to be conducted, what the products are. Work to include/align the various desires, such as from RO, Forest Sup, District Ranger. (*Flip-chart bullet*)

Collaborative and Flexible: "I think as a Line Officer I would want to develop an accurate Letter of Delegation and have somebody as **a liaison to keep the team in line** with that Letter of Delegation. And if there were things that came up that were outside the letter of delegation, maybe **readjust it, but there should be some dialogue between the Forest or the Unit and the team** to do that adjustment. They shouldn't just run with what they think it should or where they think it should go. "
(NFS, District Ranger)

Emotional Impact

" the bigger issue was for **the healing process** to start. It takes a mental, physical, **emotional toll** on everybody from the Burn Boss {uhhmmm} to the lighter to the Line Officer to the Fire Staff that has said, go forth and do good things. And to really get to where you're getting over that in the incident and get it behind you, that report is stopping that. The report not being out, you're not able to get past it **to get closure**."

(NFS, Zone Fire Staff Officer)

Review Team and Follow-up

" I keep going back **to team makeup and how a team runs a review** and making sure that **there's clear objectives** for the review that are agreed upon and then basically go in with the attitude of, hey, we want to be able to figure out what happened, **learn from it**, and if there's corrective actions that need to take place, do those. **Make sure those corrective actions happen**, and let all this political stuff, drop it out of the equation and try and **get people .. engaged with us**. "
 (*BIA, Regional Fuels*)

Transfer

Mechanism: " there really isn't that defined mechanism for getting the lessons learned on escaped prescribed fires out or even the review reports. " (*NFS, Forest FMO*)

Responsibility: Often when we are on these review teams, I think my job is done when the product is written or whatever is done; it's in a pretty package, put a bow on it, and we're done. But that's often the first stage to sharing the information" (*Workshop summary*)

Transfer in person: "You can do a report, but face to face buys you a lot." (*NPS, Lead Wildland Fire Module*)

Transfer by those involved: "The most powerful communicator in sharing lessons learned are those people, a Burn Boss or somebody directly involved in the event and going on the circuit to share their story with others." (*NFS, Forest Fuels Planner*)

Personal connection to event: "If I can create a personal connection to it, it has a lot more relevance, and I'm likely to learn those lessons, rather than if it's another report or even a video interview or something that I can't make a connection to." (*NFS, Forest FMO*)

Summary of themes

➢ General confusion about types of reviews; purpose and intent; definitions; guidance about which used when, flexibility; what's the outcome

➢ General agreement that the seven elements are not leading to learning on the ground…

  – May be necessary and valuable for WO, but may not be compatible with a review that's valuable for the field

    • Line officer intent and direction to Review Team, transparency with unit

    • Review team training/skills - approach matters – questions v. listening

    • Local culture

  – But, may be due to perceived intent as opposed to specific elements

➢ General desire for flexibility, scalability to review *all* types of outcomes
➢ General desire for learning oriented reviews focused on unit
➢ Desire for ability to trend
➢ Desire for more effective transfer and incorporating lessons into practice

How to make sense of this?

What is our theory (model) of high performance?

Performance and 'error'

Action & Learning

Role of Stress

Performance and 'error'

Compliance   **Risk**   **Learning**

⟵—————————————————————————————————⟶

Rules-based   *Goal-based*   *Improvement- based*

Outcomes
    'errors' result in blame

                in more controls

                              are opportunities

Managers
    enforce rules

                Use techniques: MBO
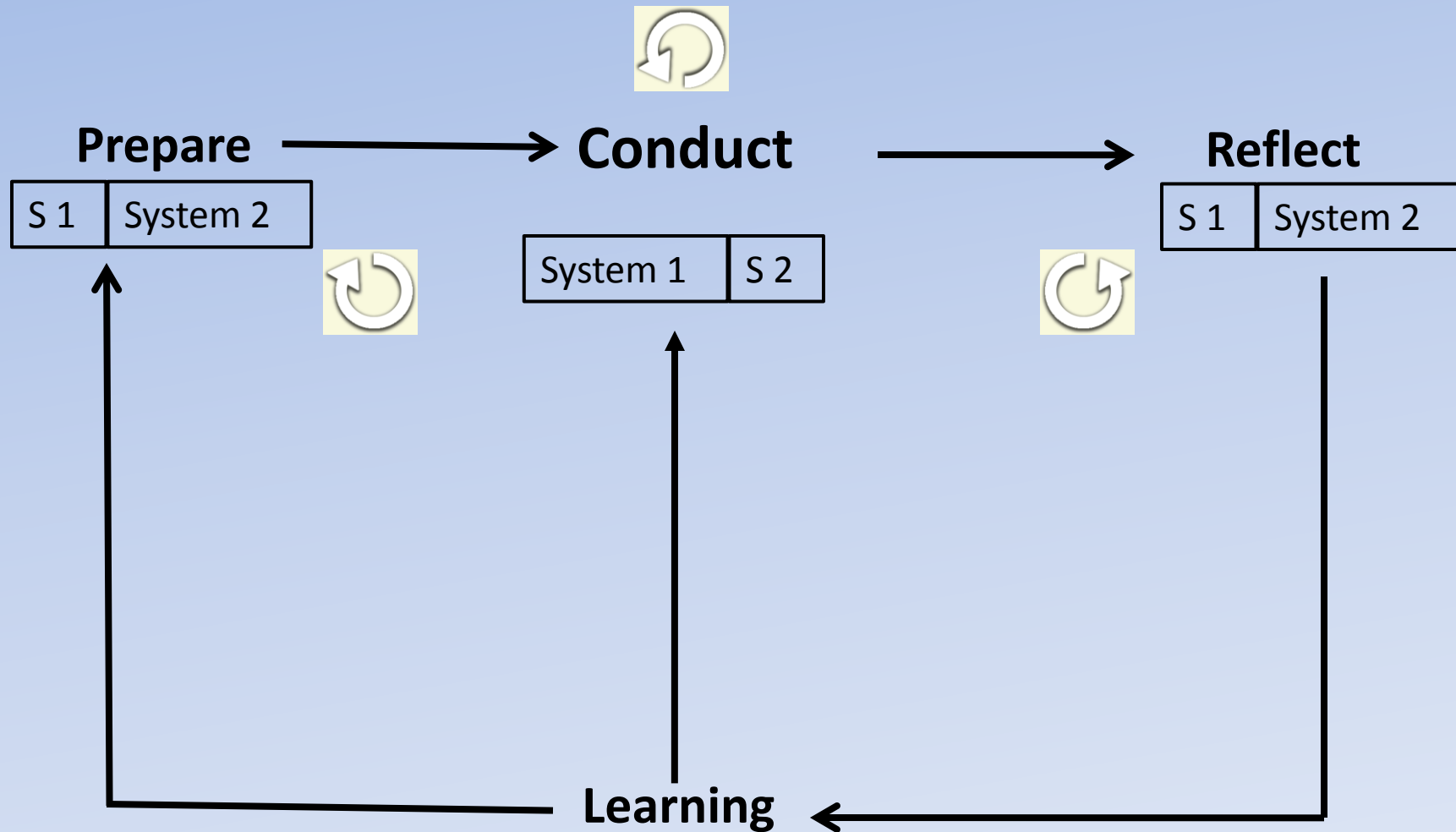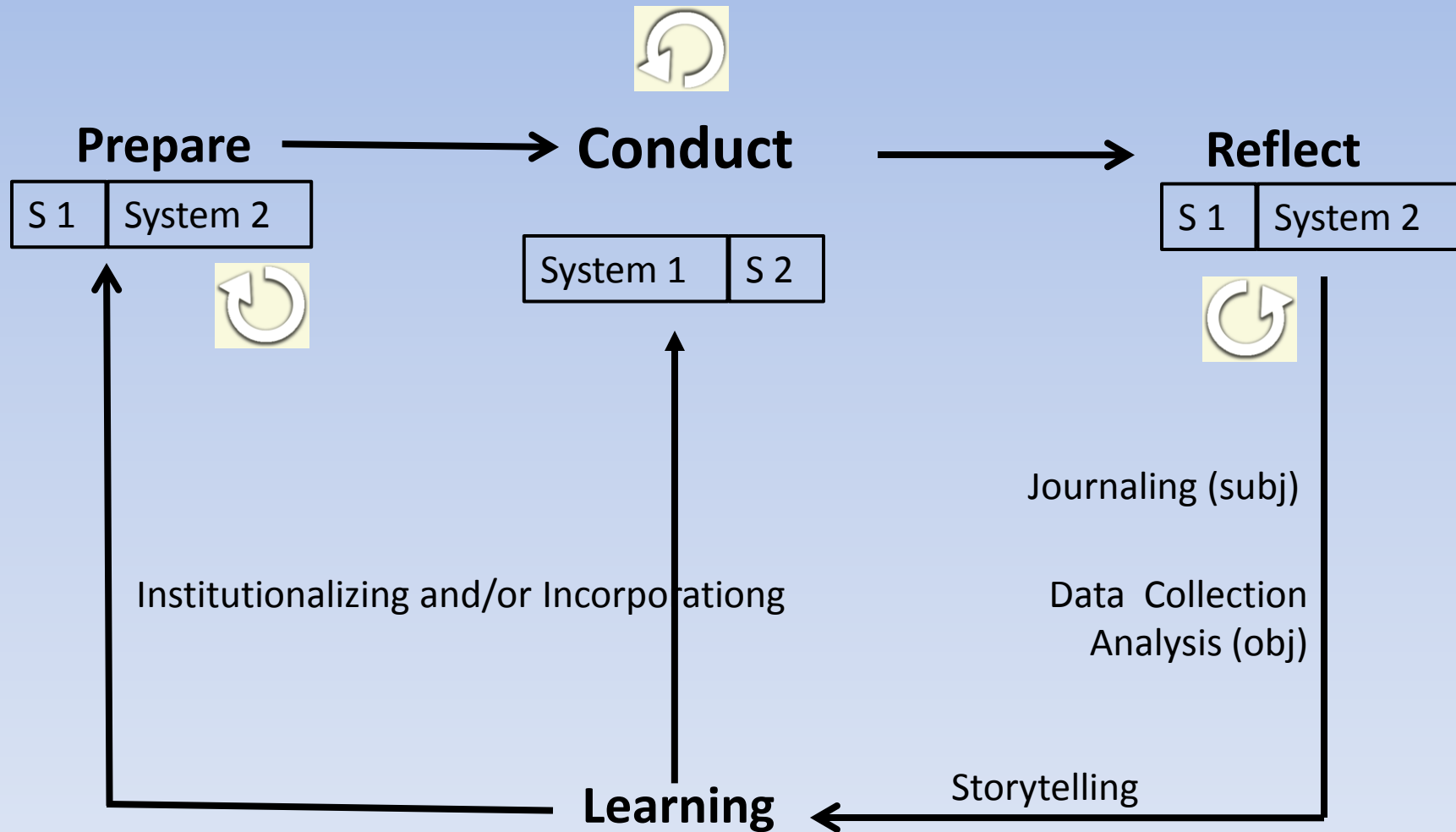
                        coach, support collaboration

Conflict is
    unresolved, competitive

                discouraged

                        resolved to mutual benefit

Action and Learning

Prepare → **Conduct** → **Reflect**

S 1	System 2

System 1	S 2

S 1	System 2

Learning

Action and Learning

Prepare → **Conduct** → **Reflect**

S 1	System 2

System 1	S 2

S 1	System 2

Journaling (subj)

Data Collection
Analysis (obj)

Institutionalizing and/or Incorporationg

Storytelling

Learning

Action and Learning

Prepare → **Conduct** → **Reflect**

S 1	System 2

Design/Plan
Leader's Intent
Goals
Assessments
Visualization
Controlled Experiments
Systems View
Deliberate Practice

System 1	S 2

Expertise
Intuition
Improvisation
Surprise
Mindsight/
 Body Sensation
Emotion Regulation

S 1	System 2

Understand
Leader's Intent
Non-defensive/Trust
Consistent. Flexible
Scaled - Good/Ugly
Outcomes shared

Learning

Action and Learning

Confidence – Self/Other

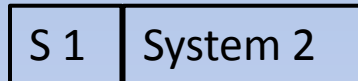Compassion - Self/Other

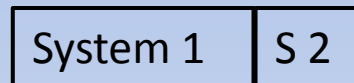BAR   Pre-mortem

AAR

Outcome Review
Good
Routine
Bad
  - Miss
  - False Alarm
Ugly

Prepare ⟶ **Conduct**

| S 1 | System 2 |

| System 1 | S 2 |

| | 2 |

Sense-making

Journaling (subj)

Institutionalizing and/or Incorporationg

Data Collection
Analysis (obj)

Storytelling

Learning

????

Role of Stress

Licensed
Therapists

>

Peer-Support / Peer-Coaching

>

Professional
Coaches

Dys-function

Elite-function

← ————————————————————————— →

PTSD
Depression
Anxiety

Normal range of function

Flow

Implications for improving performance:

Seek to :

❖ Vector towards Learning on the
     Compliance – Risk – Learning Spectrum

❖ Enhance Learning by closing the Learning Loop

❖ Emphasize coaching to respond to and use stress
     productively

Discussion